DOCUMENT RESUME

ED 320 282 EA 021 946

TITLE	Preliminary Staff Report on Educational Research, Development, and Dissemination: Reclaiming a Vision of the Federal Role for the 1990's and Beyond. Committee Print Prepared for the Subcommittee on Select Education of the Committee on Education and Labor.
INSTITUTION	Congress of the U.S., Washington, D.C. House Committee on Education and Labor.
PUB DATE	Sep 89
NOTE	48p.; Serial No. 101-J. Report not officially adopted by the Committee on Education and Labor or any subcommittee thereof.
AVAILABLE FROM	Superintendent of Documents, Congressional Sales Office, U.S. Government Printing Office, Washington, DC 20402.
PUB TYPE	Legal/Legislative/Regulatory Materials (090)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Educational Change; *Educational Development; *Educational Improvement; *Educational Research; Elementary Secondary Education; *Research and Development; *Research and Development Centers; School Effectiveness
IDENTIFIERS	*Office of Educational Research and Improvement

ABSTRACT

Five sections compose this report on the federal role for the 1990s and beyond in educational research, development, and dissemination. The sections consist of: an introduction; recommendations; summaries of hearing testimonies; summaries of documents; and appendices. The direction taken in this report is the result of 2 days of subcommittee hearings--the first oversight of regional labs and centers in over 20 years--on the Office of Educational Research and Improvement (OERI). What emerged from the extensive oral and written testimony of 21 witnesses was a picture of federal educational research in disarray. The recommendations and summaries support the idea that federal research, development, and dissemination should be concomitant with the establishment of a national treasure chest of research results, models, and materials to be conveniently placed at the disposal of the nation's educational decision-makers. Appendix A discusses and examines the possibility of placing an educational research, development, and dissemination function within a new administrative and policy-making context. Appendix B expresses additional concerns with respect to proposed centers for the effective education of the disadvantaged. (JAM)

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[COMMITTEE PRINT]

PRELIMINARY STAFF REPORT ON EDUCATIONAL RESEARCH, DEVELOPMENT, AND DISSEMINATION: RECLAIMING A VISION OF THE FEDERAL ROLE FOR THE 1990's AND BEYOND

PREPARED FOR THE

SUBCOMMITTEE ON SELECT EDUCATION

OF THE

COMMITTEE ON EDUCATION AND LABOR

ED320282

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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SEPTEMBER 1989

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Serial No. 101-J

Printed for the use of the Committee on Education and Labor

AUGUSTUS F. HAWKINS, *Chairman*

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1989

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I. INTRODUCTION

Sixteen years ago, the Congress established a distinct federal office responsible for educational research and development, with the following mission statement:

> The Congress declares it to be the policy of the United States to provide to every individual an equal opportunity to receive an education of high quality regardless of race, color, religion, sex, age, handicap, national origin or social class. Although the American educational system has pursued this objective, it has not obtained this objective. Inequalities of opportunity to receive high quality education remain pronounced. To achieve the goal of quality education requires the continued pursuit of knowledge about education through research, improvement activities, data collection and information dissemination. While the direction of American education remains primarily the responsibility of state and local governments, the Federal government has a clear responsibility to provide leadership in the conduct and support of scientific inquiry in the educational process.[1]

Reclaiming this vision for federally-sponsored educational research and development for the 1990's and beyond is the focus of this report.

The House Subcommittee on Select Education has primary oversight reponsibility for the Department of Education's Office of Educational Research and Improvement (OERI) as well as responsibility for authorizing any new legislation relating to that office. In 1991 the authorizing legislation, set forth in sections 405 and 406 of the General Education Provisions Act (GEPA), is due to expire.[2] The Subcommittee is examining the possibility of amending or reauthorizing this legislation earlier than scheduled, and in any case, will immediately develop a framework for a broad consultative process leading to reauthorization of OERI.

In a nation where education is primarily a state and local responsibility, it is imperative that the federal government be instructive and supportive in its role rather than commanding and controlling. The optimum role for the federal government is to do for the states and localities what they cannot do for themselves. Research, development, and dissemination are clearly functions which the states and localities cannot conduct effectively for themselves, and for which the federal government must bear prime responsibility. The nature of these functions is such that they are best carried out by means of an independent entity capable of gathering data from a variety of sources for the purpose of making comparisons. Meaningful research, development, and dissemination also require an investment above and beyond the ongoing operational activities and budgets of state and local education agencies.

The goal of the federal research, development, and dissemination effort should be the establishment of a national treasure chest of research results, models, and materials to be conveniently placed

[1] P.L. 92-318, amending Section 405(a) of The General Education Act (GEPA).
[2] P.L. 99-498, Higher Education Act Amendments of 1986.

at the disposal of the nation's educational decision-makers. In order to accomplish this task, the federal research, development, and dissemination function must have the highest degree of integrity and credibility. For good reason, education is a matter which arouses great emotions from many segments of the population. And the national landscape is littered with experts who claim to know what and how children learn. Above the plethora of "motherwit", common sense, ideological extremism, and pseudo-science there must be established some stable and amply illuminated beacon of light, fueled by the best available reason, science, and scholarship.

This national treasure chest must be made available, not only to Congress and the federal executive branch, but to every decision-maker in America. They must be able to tap into a network which allows them to use this vital resource. As they strive to improve their systems, governors and state legislators, state commissioners, local school boards, superintendents, principals, teachers and parent should be able to confidently shop for ideas, models and materials. Of all the forms of assistance that the federal government could possibly provide, research, development, and dissemination are the least expensive, the least threatening, and the most needed.

Growing out of the Subcommittee's oversight hearings on OERI held on April 20 and 21, 1988, this report is intended as an open invitation to all who have a stake in educational research in our nation to respond. It is conceived as an early step in a dialog which aims to include individuals and institutions which have not yet seen themselves as having a stake in the process. A final report, to be released prior to January 1989, will attempt to further crystallize issues as a new administration prepares its education agenda.

Public comments can greatly assist this process of forging an effective national research, development, and dissemination effort. Written comments are especially welcome, and should be sent to the House Subcommittee on Select Education, 518 House Annex One, Washington, D.C. 20515. Comments should be directed to Maria Cuprill, Subcommittee Director.

A Need for Action

At a time when the need for solutions to long-term problems within the nation's schools is the focus of considerable national anxiety, it has become apparent that there is a critical need to develop solutions through meaningful educational research.

The economic well-being of society depends on the effective education of all our citizens. Statistics such as the following indicate that there are serious failures in meeting the educational needs of millions of young Americans. Specifically.

—It is estimated by the Bureau of the Census that an average of 3,789 children drop out of school each day, or 682,000 a year. In urban centers the rate is much higher; up to half of all students entering ninth grade fail to graduate.[3] The costs of dropping out are staggering, both for the individual and for the society generally. The Committee on Economic Development

[3] The drop out estimate of 682,000 is based upon information from the Current Population Survey conducted by the Bureau of the Census. The daily average was obtained by dividing the number of dropouts between 1985 and October 1986 by 180 schooldays

(CED) estimates that each year's class of dropouts will cost the nation more than $240 billion in lost earnings and foregone taxes over their lifetimes. CED excludes from this figure the billions for crime control, welfare and health care, and other social services, that this group will cost the nation.[4]

—Currently, according to CED, fewer than 50% of high school seniors read at levels considered adequate to carry out only moderately complex tasks, while a staggering 80% have inadequate writing skills.[5]

—In the areas of math and science, our students rank near the bottom in international measures of achievement among developed nations.[6]

The direction taken in this report is the result of two days of hearings on OERI held by the Subcommittee in April. The hearings included the first oversight in over twenty years of the regional labs and centers—the major instrumentalities for federal educational research and development.

What emerged from the extensive oral and written testimony of 21 witnesses was a picture of federal educational research and development in disarray. The budget for OERI has diminished substantially over the years (the General Accounting Office documented a 70% reduction—measured in constant dollars—since the 1970's in support of research).[7] Additionally, it also appears that the office has lost sight of its mission and purpose.

The hearings demonstrated that there is also a great disparity between what many of the witnesses perceive as the most critical needs of the nation's schools and the research and dissemination agenda pursued by OERI.

Without clear support for a research agenda that is responsive to American education in the 1990's, OERI is destined to be viewed as only marginally relevant to the improvement of educational practice. This report is published as an urgent first step to help build a consensus for change.

Plans for Additional Hearings, Consultations, Site Visits

No one group of individuals has a monopoly on wisdom or constructive and workable ideas. Therefore, as the Subcommittee proceeds with the oversight and reauthorization process, a systematic effort will be made to solicit input from each of the communities that has a stake in an effective education R&D system. This will include, but not be limited to, consumers of education information such as teachers; administrators; school boards; local, state, and federal policymakers; parents; librarians; the military; the private

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[4] The Committee on Economic Development, *Children in Need: Investment Strategies for the Educationally Disadvantaged*, 3, 1987. See also McDill, Pallas, *In Our Lifetime: Schooling and the Disadvantaged*, Paper prepared for the Committee on Economic Development, September 1987, 36.

[5] *Children in Need*, 3. See also National Assessment of Educational Progress, "Literacy: Profiles of America's Young Adults," Educational Testing Service, Princeton, N.J., 1986.

[6] International Association for the Evaluation of Educational Achievement, *Science Achievement in Seventeen Countries, A Preliminary Report*, 1988 and *The Underachieving Curriculum: Assessing U.S. School Mathematics from an International Perspective*, 1987.

[7] United States General Accounting Office, *Education Information: Changes in Funds and Priorities Have Affected Production and Quality*, Washington, D.C.: GAO/PEMD-88-4 November 1987, 4.

sector; foundations and nonprofit, including community-based, organizations; unions; and education R&D producers and disseminators, e.g., researchers, program designers and implementers.

The process of exchanging viewpoints and information will contribute to a more informed debate and discussion. It will lead to the creation of new partnerships among members of the interested communities which can foster what should be an ongoing process of implementation, evaluation, and modification.

Toward this end, consultations with members of the community, begun prior to the April hearings, will be continued and expanded. The Subcommittee also plans one additional oversight hearing for the fall of 1988. New and progressive programs and practices, brought to the Subcommittee's attention, represent promising areas of educational change and experimentation. Site visits and consultations to some of these programs are projected.

II. RECOMMENDATIONS: FINDINGS AND CONSIDERATIONS

Recommendations

What follows are a series of recommendations designed to spearhead needed changes for OERI to more effectively meet the current and future challenges confronting the nation's schools. In order for real progress to be made, OERI needs to be depoliticized so that priorities can be properly identified and research activities can gain the kinds of credibility and support they merit. Because the problems effecting the nation's schools are so pressing, it is important that all available resources be coordinated in the most efficient and effective manner. OERI needs to exercise leadership to bring together the work of all government agencies and departments that pertain to educational research. In the interim, urgent new initiatives are necessary to discover better ways to teach the educationally disadvantaged.

1. The administrative and policy-making context for OERI must be modified to establish a strong policy advisory body which has the status, prestige and credibility necessary to reassure governmental decision-makers and the public in general, that there will be a determined ongoing effort to maintain maximum feasible freedom from partisan interference. The policy advisory board shall recommend priorities, review grant and contract-making procedures, and make other relevant policy recommendations.

2. OERI must set priorities and establish a series of longterm goals in consultation with Congress and a restructured advisory board.

3. The investment goal of the federal research development and dissemination function must be 1% of the total amount spent nationally on education. Funds spent for these activities by States, localities and the private sector should be included in the overall assessment of the national investment.

4. An administrative task force must be appointed to make recommendations to improve the coordination of OERI's mission with that of the other components of the department of education. Additionally, the task force should make recommendations designed to improve the coordination of OERI's educational research, development and dissemination function with those of other Federal agencies.

5. OERI must develop a national dissemination policy that will advance the goal of placing a national treasure chest of research results, models and materials at the disposal of the Nation's educational decision-makers.

6. OERI must require routine professional and independent evaluations of all funded research, development and dissemination activities and make them available to congress in the form of biannual reports.

7. OERI must make a significant new investment in researching and evaluating new technology capable of improving the quality of education at all levels.

8. Private sector involvement in the generation of educational products and services must be throughly reviewed and special efforts must be mounted to forge more effective partnerships between the private and public sectors.

9. OERI must fund new initiatives to improve the effectiveness of education for the disadvantaged, including the establishment of a new national center-laboratory for the effective education of the disadvantaged. Such new initiatives should not go forward until there has been appropriate consultation with Congress and knowledgeable scholars in the education community.

10. A national center-laboratory for the effective education of the disadvantaged should be utilized as the core of a pilot project for the provision of ongoing assistance to schools whose enrollments are made up predominantly of "at risk" students. A responsive and interactive delivery system for research, development and dissemination (similar to the original agricultural extension programs of the land grant colleges) must be installed.

FINDINGS AND CONSIDERATIONS

1. The administrative and policy-making context for OERI must be modified to establish a strong policy advisory body which has the status, prestige and credibility necessary to reassure governmental decision-makers and the public in general, that there will be a determined ongoing effort to maintain maximum feasible freedom from partisan interference. The policy advisory board shall recommend priorities, review grant and contract-making procedures, and make other relevant policy recommendations.

There is widespread belief that OERI has become far too partisan to perform its work effectively. The partisan politicization of research has had a number of serious consequences. It has meant that some of the funded research has lost credibility. This loss of credibility has meant a sharp decline in the amounts of money that appropriations committees are prepared to commit to educational R&D. Additionally, it has served to erode the long-term prospects for significant increases in funding. By placing OERI's policy setting mechanisms on a new non-partisan footing, the research and development operation will become more effective.

This view is also shared by the independent Office of Technology Assessment (OTA) in their recent publication *Technology and the American Economic Transition: Choices for the Future*, "Lessons learned from research institutes in other areas could be used to

construct a charter that would provide the greatest possible insulation from political manipulation while ensuring that the system was responsive to the needs of its clients—the Nation's students and teachers." [8]

Despite the recognition by the founders of the original National Institute for Education (NIE) that federally funded research activities should be insulated from partisan interference, the administrative and advisory structures that were established did not assist in furthering this intent. Although the National Council for Education Research (NCER) was meant to be a broadly representative advisory board with the powers to recommend policy, no specific board membership criteria existed. Furthermore, because the body's nomination process was entirely in the hands of the executive branch, critical delays in selecting a board affected NIE's ability to present credible testimony before key congressional appropriations' committees.[9]

A more independent and representative board is a crucial first step in restoring the credibility of the educational research enterprise. In some of the major research fields—from space exploration to health—boards similar to the kind recommended have taken a hand in significantly shaping policy and have been relatively more successful in attracting widespread and continued support for their work.

Unless OERI is given more freedom from partisan interference, these goals will continue to remain out of our reach. We are proposing a structure which allows for participation of all relevant groups who will help to bring objectivity in policy-making, priority setting and the grants-making process. The panel will have the responsibility for helping to shape the educational research, development and dissemination policy in the United States. The members of the board must be selected from the ranks of the educational research community, be nominated by the majority and minority leaders of the House and Senate, and should include representatives from both major national teacher unions, the foundation community, parent organizations, private industry, as well as state and local education administrators (see Appendix A). Membership, limited to a maximum of 29, could be composed as follows:

1. Executive membership: the Directors of Research for the Departments of Defense and Labor, Assistant Secretary for the Office of Educational Research and the Secretary for Education as well as the Directors of the National Science Foundation, National Institutes of Health, the National Endowment for the Arts, the National Endowment for the Humanities (NEH) as well as the Librarian of Congress.
2. One representative from each of the two major national teacher associations and one representative of a national parents organization.
3. One representative from the Chief State School Officers, and one from local school superintendent associations.

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[8] United States Congress, Office of *Technology Assessment, Technology and the American Economic Transition:* Choices for the Future, May 1988, 459.

[9] L. Sproull, S. Weiner, and D. Wolf, *Organizing an Anarchy: Belief, Bureaucracy and Politics in the National Institute of Education,* University of Chicago Press, 1978, 85.

4. One representative from the Foundation community.

5. Six representatives from private industry: two to be appointed by the President; one appointed by the majority and minority leaders of the House and Senate.

6. Remaining representation to be drawn from the educational research community: one to be appointed by the majority and minority leaders of the House and Senate and three to be appointed by the President.

7. The Board would be chaired by the Vice President of the United States in order to accord it the appropriate prestige and status.

Such modification of the policy-making context of OERI is necessary to shield the nation's research, development, and dissemination program from partisan dominance to the maximum extent possible. All aspects of federal educational policy-making stand to gain from such political insulation.

2. OERI must set priorities and establish a series of long-term goals in consultation with Congress and a restructured advisory board.

The Subcommittee hearings produced evidence that OERI has a limited capacity to engage in significant long-term planning to address the problems schools will confront in the year 2000 and beyond. The dangers of short-term funding and rapidly shifting priorities were also made evident at the hearing. The lack of continuity in funding has served to further weaken the credibility of the educational research and development enterprise, preventing the successful marshalling of resources around key priority areas. Educational research must go beyond the various whims of each incoming Assistant Secretary of Education or the demands of political fashion.

The agency's inability to plan ahead has precipitated the lack of long-term, carefuly evaluated research—precisely the type that is highly valued and has made a difference at the policy level. The single best known example of this work is the Perry Preschool Project, which continues to be funded through the High/Scope Foundation based in Michigan. The work was based on a commitment to improve the educational experiences for a group of preschool disadvantaged children which made clear that specific kinds of early intervention were effective means of avoiding the high societal cost of educational failure. While the hearing brought out some of the administrative problems that block the funding of such a long-term research project, it is important that we find ways to provide for this kind of well-focused inquiry.

Our planning should also take into account some of the basic economic realities that will begin to impact us by the end of the century (e.g., the projected shortage of skilled labor to fill an increasing amount of jobs that require at least a high school diploma). A goal of a 100% graduation rate by the year 2000 should be more than

just an ideal, but a real target for the entire society if the United States is going to compete in today's international marketplace.[10]

The potential for change may be greater in some educational areas than others. The National Academy of Education should be commissioned to evaluate our educational knowledge to date and to identify areas most likely to yield the greatest potential to improve student learning. As the Committee on Economic Development testified, we already are aware of those innovations, which judged in purely economic terms, are sound investments for the federal government to make.[11] We need improved processes which will enable OERI to make informed, rational decisions about how it can most efficiently use, as well as build upon, the existing knowledge base to most effectively meet the nation's current and future needs.

The following are examples of goals that might be included in a long-term plan:

1989–1999

A. Fully implement early childhood programs to cover all eligible children
B. Introduce Oriental and Slavic language studies into every high school in America
C. Achieve a 90% graduation rate for High School
D. Double the number of minority graduates entering the teaching profession
E. Achieve a 90% grade level reading rate for all ninth graders (as determined by a nationally accepted test)

1999–2009

A. Increase by 50% the number of students entering into and graduating from college.
B. Improve the ratings of the performance of American students in international math and science comparisons
C. Ensure 100% computer literacy for all high school graduates
D. Introduce individualized educational programs into all elementary and secondary schools
E. Achieve a 90% adult literacy rate nationally

In order to set priorities that do not change every few years, it is vital that the guiding fundamental question for the sponsorship of federal educational research, development, and dissemination shall be: What activities will facilitate the achievement of these goals?

3. The investment goal of the Federal research, development and dissemination function must be 1% of the total amount spent nationally on education. Funds spent for these activities by States, localities and the private sector should be included in the overall assessment of the national investment.

There is widespread consensus that funds devoted to educational research and development are far too limited. Since the fact is that

[10] United States House of Representatives, Subcommittee on Select Education, Committee on Education and Labor, Hearings on the Office of Educational Research and Improvement (OERI), Testimony of Gordon Ambach before the Subcommittee on Select Education, April 21, 1988, 80.
[11] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Nathaniel M. Semple, April 20, 1988.

the total national investment in education (including state and local levels) approaches $300 billion dollars, funding for educational research (under $100 million) is well below the 1% considered healthy for any enterprise that needs to adapt to changing demands. The Subcommittee heard evidence that Xerox spends $700 million dollars on R&D, a much greater percentage of its overall budget than that spent by the federal government.[12] The Office of Technology Assessment recently expressed the point another way, "If the Nation's educational enterprise invested in research and development in the same proportion to gross receipts as the average U.S. industry, investment would have amounted to between $8 and $12 billion in 1985, 60 to 90 times more than the actual total."[13]

The hearings provided ample evidence that demands on the educational system are intense and will become even more so in the future: whether we look at the problem from the perspective that other developed countries are outperforming the U.S. on math and science achievement tests or that the workplace is increasingly requiring higher skill levels from new employees. However, as educational needs have increased, R&D funds have declined precipitously. Without significant and well-directed expenditures in the area of educational research, we will inevitably "lose the brain race."[14]

Undoubtedly, the incoming Administration, partly in response to the long period of budget decline, will promise budget increases in education. However, it is an open question as to whether significant increases will be targeted at educational research, development and dissemination. The magnitude of the problem is such that unless the best talents in the educational research community are fully engaged in the process of rebuilding, any increases will be temporary and the real results of the spending uncertain.

The 1% R&D investment goal will be made more realistic if local, state, and private funding sources are taken into account when assessing the increased amounts to be spent in this area. Appropriate coordination under a restructured research and development and dissemination office should enable the federal government to both track the uses of non-federal research dollars and more effectively disseminate useful results.

4. An administrative task force must be appointed to make recommendations to assist in the coordination of OERI's mission with that of other components of the department of education. Additionally, the task force should make recommendations designed to improve the coordination of OERI's educational research, development and dissemination function with those of other Federal agencies.

Despite repeated calls for greater coordination of the federal investment in educational research and development, much remains

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[12] Oversight hearings on the Office of Educational Research and Improvement [OERI], Testimony of Dennis P. Doyle, April 20, 1988.

[13] United States Congress, Office of Technology Assessment, *Technology and the American Transition*, May, 1988, 458.

[14] D. Kearns and D. Doyle, *Winning the Brain Race, A Bold Plan to Make Our Schools Competitive*, ICS Press, 1988.

to be done to fully maximize our national efforts.[15] The authorizing legislation directs OERI to ". . . promote the coordination of educational support within the Federal Government. . . ." [16] However, ERIC, the educational research and information clearinghouse system designated to receive all relevant government documents, is often bypassed by many federal agencies and departments responsible for educational research. Subcommittee hearings additionally revealed that meaningful cooperation and communication among the various agencies and departments responsible for educational research is rare. It is dismaying, for example, that although 20% of the active military is either being taught or is engaged in teaching and that the military spends up to five times more than the civilian sector on educational technology, ERIC does not receive any military documents pertaining to educational improvement.[17]

While it is difficult enough to justify in an age of lean budgets the lack of communication between OERI and other executive departments, the degree to which OERI's own funded entities (labs, centers, and ERIC) fail to cooperate with each other is a phenomenon which borders on absurdity. Potentially more serious questions are raised concerning the extent to which OERI does not coordinate with the other components of the Department of Education. For example, the Department has established its own informational clearinghouses that do not have the capability to interact with similar subject area clearinghouses sponsored by the ERIC system.[18]

Small scale initiatives, such as the Federal Interagency Committee on Education (FICE), which was proposed when the Department of Education was founded, cannot hope to accomplish what is needed.[19] These efforts fail because they view interagency coordination statically, as the periodic communication between agency heads around certain topics of mutual interest. An internal administrative task force will need to examine creative solutions that force greater coordination upon all aspects of what should become a comprehensive, interactive system. Such possibilities might include innovative cross-coordination mechanisms that would allow both labs and centers to work together with local school districts on high priority problems. Regional conferences that bring together

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[15] See for example, *Educational Research: Prospects and Priorities, Appendix I to the Hearings on H.R. 3606 and Related Bills to Create a National Institute of Education*, before the Subcommittee on Select Education, 11-36 and *Hearings*, Testimony of Richard L. Turner, before the Subcommittee on Select Education, Hearings to Extend the Authorization of Appropriations for the National Institute of Education, February, 1980.

[16] P.L. 96-88 (d) 1 (E), Department of Education Organization Act of 1979.

[17] United States Congress, Office of Technology Assessment, *Technology and the American Transition*, 242, United States Congress, Office of Technology Assessment, *Power On! New Tools for Teaching and Learning*, 1988, 164, and see testimony of Judi Conrad, Chair Council of ERIC Directors (COED), before the Subcommittee on Select Education, Thursday, April 21, 1988, 117.

[18] There are for example three clearinghouses funded by the Department of Education devoted to the same aspect of special education, the National Clearinghouse for the Education of the Handicapped, National Clearinghouse for Postsecondary Education of the Handicapped and the National Clearinghouse on Careers and Employment in Special Education, all of which do not communicate with the ERIC clearinghouse devoted to Handicapped and Gifted Children, or the ERIC clearinghouse on Adult, Career and Vocational Education. Nor does the ERIC clearinghouse on Languages and Linguistics correspond with the Education Department's Clearinghouse on Bilingual Education.

[19] FICE was established under P.L. 96-88. See also United States Congress, Office of Technology Assessment, *Power On! New Tools for Teaching and Learning*, 181.

state and local educators, as well as lab and center staff, to develop an action agenda around such problems as dropout prevention, must be considered.[20]

Other options that require exploration consist of substantive ways to link the Department of Education's Office of Planning, Budget and Evaluation (OPBE) with relevant researchers within OERI and the labs and centers. OPBE collects a vast amount of data concerning the functioning of vital federal programs such as Chapter One. There must be a more interactive mechanism through which program data can be analyzed and assessed so that modifications of the program can be made prior to the issuance of a final report or evaluation.[21] Moreover, the research community must have a greater hand in shaping the kinds of demonstration programs that are funded and greater say in how those programs are evaluated and disseminated.

5. OERI must develop a national dissemination policy that will advance the goal of placing a national treasure chest of research results, models and materials at the disposal of the Nation's educational decision-makers.

What emerges from approximately twenty years of direct federal involvement in educational dissemination is the importance of local commitment to school improvement and the relative ineffectiveness of imposing change from the top down.[22] Studies additionally reveal that those who have the responsibility for implementing policy often feel overwhelmed by a surplus of information and have little time to distinguish the effective innovations from those of doubtful validity.[23] At the same time, many can agree that those schools requiring the most radical changes are often the last to receive up-to-date and relevant information which could help make a difference.

There are few signs that the current dissemination system is well equipped to deal with the importance of the above insights. Specifically, there has yet to emerge a national dissemination policy of exploiting, in a coordinated fashion, the strengths of existing dissemination systems (such as the regional labs, ERIC, and the National Dissemination Network), as well as identifying what other dissemination strategies are needed to meet the needs of today's schools.

Among those other strategies should be ones that have the most promise of significantly improving practice in the poorest school districts which contain the children most at risk for educational failure. The improvement of student learning has always been a key congressional priority, but the above listed instrumentalities have been slow in developing innovative ways to penetrate the host

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[20] Broad topics such as drop out prevention, could provide opportunities to explore some of the promising research approaches affecting "at-risk youth", K through 12.

[21] L. Leviton and R. Boruch, "Contributions of Evaluation to Education Programs and Policy", *Evaluation Review*, 7 (1983): 563-598.

[22] "Implementation Aspects of Dissemination: reflections Toward an Immodest Proposal" David P. Crandall, Paper presented before AERA conference in New Orleans, April, 1988, 14.

[23] C.V. Horn and B. Hetrick, "Buyers and Brokers: Information Flow in the Education Policy Community" Unpublished research report funded by the United States Department of Education, Office of Educational Research and Improvement, Grant #OERI-6-86-0011, October, 1987, 27-28.

of bureaucratic structures that block improvement in some of the nation's least effective schools.

There is an urgent need to develop new strategies that are based on models drawn from outside the educational research field. One possible example is drawn from the agricultural extension, "county agent" system which transferred productive agriculture ideas and technologies to farmers least exposed to new knowledge.[24] Analogizing from this example would mean that highly trained educational researchers with practical experience with the realities of the classroom and who are also familiar with the neighborhoods from which the students are drawn, would actively assist principals, teachers, and others seeking to foster constructive educational improvements.

Another innovative concept proven successful by the Department of Agriculture and worthy of exploration would involve etablishing community councils dedicated to school improvement. Such councils could be formed co-jointly with neighborhood resources centers which contain materials describing the latest validated educational innovations and practices. Such local community groups could help to generate some of the pressure needed to change outmoded practices and act as a crucial link between the researchers, the local community, practitioners, and policy makers.

6. OERI must require routine professional and independent evaluations of all funded research, development and dissemination activities and make them available to Congress in the form of a biannual report.

Professional and independent evaluations of federally-funded educational research, development and dissemination are unfortunately lacking. Without such information it becomes difficult to assess the value of the work being performed and to make the case that more funds for educational research need to be appropriated.

The Subcommittee hearings revealed that OERI has failed to exercise leadership in this area. Testimony from the General Accounting Office showed that between 1980 and 1985, evaluation activities declined precipitiously by 79%.[25] The present administration has continued to view the evaluation of its funded projects as, at best, a marginal activity. Despite the fact that a major recompetition of the regional labs and centers is scheduled for 1990, the Assistant Secretary is doubtful that there will be funds available for continued peer review of these entities.

The time has long passed when hearsay and anecdotal evidence about the value of the work being done can be substituted for hard documentation. While educational research, development and dissemination work can be difficult to evaluate, it should be possible to develop reasonable criteria to assess progress towards clearly identifiable goals. Strong OERI leadership is necessary to facilitate more professional evaluations which would improve the credibility of educational research. An important first step would be to have an independent panel develop specific evaluation criteria that will

[24] "Extension in the Eighties: A Report of the Joint USDA Committee on the Future of Cooperative Extension", University of Wisconsin, Madison, May, 1983.

[25] United States General Accounting Office, *Education Information: Changes in Funds and Priorities Have Affected Production and Quality*, Washington, D.C.: Gao/PEMD-88-4, 3.

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be used to review the work of key federal entities, including the labs and centers.

OERI must continue to broaden the work of the National Diffusion Network (NDN) by working with the labs and centers to validate promising methods and procedures. Congress needs to receive more accurate information about the most effective dissemination strategies for reaching certain target populations, as well as research strategies that would be most beneficial to practitioners making a difference at the classroom level.

OERI should also provide leadership by supporting a system for educators to exchange information on the effectiveness of programs, products and practices. Many school systems collect information on curriculum or policies but they have no way of learning the results of similar approaches attempted elsewhere. The agency should study the possibility of establishing an information exchange system that could complement the National Diffusion Network (NDN) by being more interactive and locally-based.[26]

7. OERI must make a significant new investment in researching and evaluating new technology capable of improving the quality of education at all levels.

A recent Office of Technology Assistance report, *Technology and the American Transition: Choices for the Future*, makes clear that although educational technology holds the promise of important breakthroughs within the next two decades in the way we teach, the Department of Education has yet to make the investment commitment necessary to reap the potential benefits:

> At present there is no national center for focusing research on education equivalent to the National Institutes of Health or the Agricultural Research Center. By far the bulk of research on educational technology supported by the Federal Government is undertaken by the Department of Defense. While a private information company typically spends several percent of gross revenue on research, virtually nothing is allocated for research directed at the real problems of teaching and learning.[27]

Important innovations provide a beacon of hope that fully individualized approaches to basic subjects like reading can be replicated across subject areas. For example, the learning rates of kindergartners and first-graders have consistently increased with the use of John Henry Martin's "Writing to Read" program, developed with IBM support. The measured grade levels of adults has increased by 2-3 years during a 20-week course using a similar advanced IBM system designed to teach literacy skills.[28]

In their comprehensive assessment of technology use in elementary and secondary education, *Power On! New Tools for Teaching and Learning*, OTA has found that new educational technologies are helping to shift our understanding of education to become more

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[26] The concept of an interactive resource for teachers and educational consumers has been initiated by the Educational Products Information Exchange, (EPIE), a non-profit consumer group.

[27] United States Congress, Office of Technology Assessment, Summary of *Choices for the Future* Report, May, 1988, 49.

[28] "Literacy Program is a Revelation for Non-Reading Adults" *Technological Horizons in Education*, 15 (September, 1987): 81-82.

learner-oriented.[29] This new emphasis is in accord with Albert Shanker's concern that the traditional classroom paradigm may be the cause of the majority of students failing to receive an adequate education.[30] There is a clear federal responsibility both to invest in the research and development of new technology (perhaps with the benefit of private cooperation), and to assist schools to move into a new technological era—an era which thus far we have stumbled into rather than carefully planned for.[31] Clearly, the development of an educational technology policy that addresses the needs of the nations' schools should be worked out in consultation with a variety of experts, private industry, top researchers, as well as practitioners. Budget requests based on careful evaluation of needs and options stand an increased likelihood of increased funding over the long term.

8. Private sector involvement in the generation of educational products and services must be thoroughly reviewed and special efforts must be mounted to forge more effective partnerships between public and private sectors.

Over recent years the involvement of the private sector in the improvement of education has become more significant. Industry support of colleges and universities has risen steadily for the past thirty years, from $40 million to more than $1 billion. Of the more than $3 billion in total annual corporate charitable contributions, more than one third is for education.[32]

A report by Public/Private Ventures, *Allies in Education: Schools and Businesses Working Together for At-Risk Youth,* reviews the various kinds of business participation in education and concludes that, ". . . economic concerns have been a spur to business involvement in public education. Many large economic issues are being redefined as educational improvement issues. Educational problems are being identified as potential economic catastrophes. Such an environment is fertile for continuing school/business partnerships." [33]

While comparatively less attention has been paid to the private sector's role in stimulating educational research, projects such as IBM's "Writing to Read" program, Apple's "Classroom of Tomorrow" and the recently created Institute of Research in Learning (supportred by Xerox), have developed as a result of intensive research efforts. The federal role in fostering such initiatives clearly includes stimulating more of the work currently being performed in this area by developing appropriate public-private partnerships. OERI has not demonstrated the leadership necessary to develop

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[29] United States Congress, Office of Technology Assessment, *Power On! New Tools for Teaching and Learning,* September, 1988, 172.

[30] Oversight hearings on the Office of Educational Research and Improvement [OERI], Testimony of Albert Shanker, April 20, 1988.

[31] United States Congress, Office of Technology Assessment, *Power On! New Tools for Teaching and Learning,* documents OERI's reductions in support for technology projects. For example, of the nine grants to Field-Initiated Research Studies funded in fiscal year 1987, one had a technology focus, 167.

[32] "Business and Higher Education: New Partnerships for a New Era" A. Magazine and M. Usdan in V. Hodgkinson (Ed) *Impact and Challenges of Changing Federal Role: New Directions for Institutional Research,* 1985, 45.

[33] National Association for Industry-Education Cooperation Newsletter, Vol. XXIV, No. 1. February 1988, 2. Quoting from *Allies in Education; Schools and Businesses Working Together for At-Risk Youth.* Philadelphia: Public Private Ventures, 1987.

the kinds of institutional mechanisms to move in this mutually beneficial direction.

The significant challenges of educating 1,500,000 new workers who will enter the work place over the next ten years, call for many joint initiatives between the public and private sectors. In many other areas of the economy such as space exploration, health, and defense, cooperative ventures are more common than in the educational sphere. Testimony before the Subcommittee revealed that there is a need for more long-term studies, which due to the exigencies of the federal budget, have not been possible to fund. While typically federal research dollars are committed for no longer than five years (as is the case with the labs and centers) and field-initiated studies for one year, much of the most significant research of recent years has had to be performed outside of the federal sector by private groups.[84]

The following are two kinds of institutional models that have the capacity to foster productive cooperation in the area of education and which could offer the possibility of much longer term commitments of money needed to fund important longitudinal studies:

1. Non-profit research corporations already have built up expertise in some specific areas of educational research. The High/Scope Foundation, for example, has specialized in the evaluation of early intervention strategies. Other organizations are sometimes specially commissioned by the government to perform tasks in their particular areas of expertise. For example, Manpower Demonstration Research (MDRC) analysed supported work initiatives for the Department of Labor in conjunction with the Ford Foundation. High quality expertise is difficult to find in some specialized areas, such as program evaluations. How non-profit research corporations can be used in these areas must be considered.

2. An innovative model of Cooperative Government Industry research is provided by the recently created SEMATECH. The purpose of SEMATECH is to carry out research and development on the semi-conductor manufacturing technologies which will help the United States semi-conductor industry regain equality with the Japanese. Fifty percent of the funding for the organization is provided by 14 United States semiconductor manufacturers; the other fifty percent by the Department of Defense. Similar research organizations could be designated the task of producing curricula software designed to meet the needs of specific populations.

These and other institutional arrangements could become critical in making the necessary qualitative leaps forward in building the knowledge base necessary for lasting improvements in the way students are taught and how they learn.

9. OERI must fund new initiatives to improve the effectiveness of education for the disadvantaged, including the establishment of a new national center-laboratory for the effective education of the disadvantaged. Such new initiatives should not go for-

[84] Oversight hearings on the Office of Educational Research and Improvement [OERI], Testimony of Charles Wallgren, April 21, 1988.

ward until there has been appropriate consultation with Congress and knowledgeable scholars in the education community.

To establish a Center for the Effective Education of the Disadvantaged, which is merely one more such center, is to throw dollars at the problem in the same direction that previous dollars have been thrown with grossly inadequate results. Indeed present law requires that all of the already established centers must be engaged in activities which contribute to the effective education of the disadvantaged. This is also the mandated mission and goal of all of the other activities financed by OERI. Laboratories, independent researchers, bureaus, etc., are all required to focus primarily on the effective education of the disadvantaged.

The repetition of the following quote from the OERI mission statement provides the most relevant illumination:

> The Congress declares it to be the policy of the United States to provide to every individual an equal opportunity to receive an education of high quality regardless of race, color, religion, sex, age, handicap, national origin or social class. . . . Inequalities of opportunity to receive high quality education remain pronounced. . . . While the direction of American education remains primarily the responsibility of state and local governments, the Federal government has a clear responsibility to provide leadership in the conduct and support of scientific inquiry in the educational process.

Any new entity funded by OERI should be primarily focused on: harvesting the products which have already been generated by existing centers and labs; collaborating with ongoing projects and activities; coordinating similar and supportive work among the centers and laboratories; maximizing the dissemination functions of the existing Educational Research Information Centers; the identification of knowledge and research gaps which remain; launching new research efforts to close the gaps; expanding the development and dissemination activities in ways which guarantee an ongoing federal presence for local education agencies, teachers, parents and community leaders. To accomplish this timely and climatic mission we need a National Center-Laboratory with goals and objectives which are different from the existing centers.

A new National Center-Laboratory should not be bound by the parameters which have limited the other federally-funded centers and laboratories. Instead, the new entity should have maximum flexibility to engage in any research, development and dissemination activities which promote the effective education of the disadvantaged. The new Center-Laboratory should be structured to initiate and oversee a variety of approaches to research in combination with extensive experimentation and dissemination. If some modification of existing law is needed then such amendments should be enacted.

Both the nation and disadvantaged students would profit greatly if the first concern of the new Center-Laboratory was the harvesting of products, techniques and services which have already been developed by entities under the jurisdiction of OERI. As far as the disadvantaged are concerned, the new entity would become the keeper of that particular federal treasure chest of new concepts, models, publications, etc. under one umbrella. The synthesis of existing research results would, at minimum cost, speed the application of relevant findings. The new Center-Laboratory would sort

out what is most relevant for client teachers and systems serving the disadvantaged and direct the dissemination of this valuable material to areas of greatest utilization. There should be a special budget to subsidize the massive duplication and distribution of such products.

Collaboration with ongoing projects and activities sponsored by the existing centers, labs and information units would also yield considerable results with a minimum amount of new investment. Almost all of the work done by these existing entities has some utility in the schools and class-rooms serving the disadvantaged. Such collaboration, how-ever, cannot yield rewards if it is conducted as an informal, volunteer or extra work activity. Specific staff, travel budgets, incentive systems, etc. must be made available for this purpose. Closely related to the collaboration with individual agencies would be the coordination of several entities to enhance some special projects or results and hasten their availability to the educators of the disadvantaged. No such obviously beneficial coordination with appropriate clout and authority is presently being attempted.

The more rapid and more complete identification of gaps in knowledge and research would be one of the obvious by-products of a greater effort at collaboration and coordination. The Center-Laboratory should be given the authority (and the funding) to award mini-grants and contracts to agencies, groups or individual researchers in order to close the gaps in research and knowledge needed immediately by the systems serving the disadvantaged. The Center-Lab would thus become a major rudder and gyroscope for research and development activity important to the disadvantaged. Its close working relationships with existing centers, labs, and ERIC units would allow this guidance function to operate effectively with a minimum of new costs.

And finally, the National Center-Laboratory should be charged with a new task: the development of a model for the provision of ongoing research, development and dissemination support for teachers, school systems, parents and community leaders. The gravity of the present situation within urban communities with large concentrations of disadvantaged students is such that there is a need for an ongoing federal presence. The research, development and dissemination treasure chest must be made available constantly and conveniently. While the Federal government should make no attempts to command and control any aspects of local education efforts, the federal government and its resources must be more accessible to those seeking to make educational improvements.

Proposed new approaches such as the one listed above should be more thoroughly analyzed by scholars who are more knowledgeable about the problems of educating the disadvantaged. Instead of rushing to install a new Center in the last days of an administration which has grossly neglected the problem, a more thoughtful and inclusive planning approach is needed. Instead of the OERI continuing to circulate the current *Request for Proposals* it would be more appropriate to fund knowledgeable independent reseachers who would submit papers and studies to undergird the planning process for this new kind of National Center-Laboratory.

10. A national center-laboratory for the effective education of the disadvantaged should be utilized as the core of a pilot project for the provision of ongoing assistance to schools whose enrollments are made up predominantly of "at risk" students. A responsive and interactive delivery system for research, development and dissemination (similar to the original agricultural extension programs of the land grant colleges) must be installed.

There is an acute problem of massive proportions facing our public schools. Particularly in the large urban areas where the greatest number of disadvantaged students are concentrated, the need for far-reaching improvements is critical and urgent. The present piece-meal approach of OERI will never have an impact which is significant in proportion to the great need. A system with greater capacity for assisting with a variety of problems and a capacity for responsiveness is needed. A system which is permanently available to support operating educational systems would represent a quantum leap forward. Replacing the occasional and episodic involvement of OERI with its haphazard delivery of the benefits of research and development, there should be a vehicle for delivery similar to the program developed by the United States Department of Agriculture and the land grant colleges.

What has been good for American agriculture might prove to be a new beginning for the most seriously damaged education systems of our country. American farms were transformed by the steady interjection of the benefits of research and development into the food producing industry. American agriculture became the model for the world as a result of the early marriage of theory, engineering and practice. A similar approach to educational research and development, within a decade or two, could achieve equally astounding results for American education.

At the risk of exhausting the metaphor, a more detailed description of the delivery system being proposed might compare it to the "drip irrigation" technique so sucessfully popularized by the Israeli farmers. The steady application of the benefits of research and development in economical doses that are appropriate for the problem is the desired outcome. Technical assistance agents similar to the "county agents" utilized by the Department of Agriculture may become the key components of this more direct approach. Many of the organizational and human engineering techniques pioneered by the county agents should be thoroughly examined for possible use in the dissemination of educational research and development results.

What is needed is an experiment which tests an approach which, instead of requiring a totally new structure, would prove to be a logical expansion of the work of the existing entities: centers, laboratories, information units. With "education agents" serving as the quarterbacks for their assigned areas; centers, independent researchers, regional laboratories and ERIC units would be called upon as needed. Beyond the utilization of ERIC to rapidly deliver the products already available in centers and labs, "education agents" would be the logical originating point for proposals for new research or for the contracting of the expertise available in cen-

ters and labs to replicate programs and projects which these centers and labs have already successfully developed.

At this time, the proposal is to limit the experiment to testing a new system of delivery of support to accomplish educational improvements to localities with high concentrations of disadvantaged students. It is also proposed that a new National Center-Laboratory for the Effective Education of the Disadvantaged be the primary vehicle for the testing of this concept, for the launching of this pilot project. This reocmmendation, however, is being made on the assumption that what will prove to be of great value in immediately improving schools for the disadvantaged will also be good for all types of American school systems. Eventually, a delivery system which parallels the early extension program of the Department of Agriculture should be installed to cover every school district in America.

As the ideological and commercial competition mounts in the global village of the twentieth and twenty-first centuries there will be a permanent need for educational improvements regardless of the present levels of achievement. To meet this challenge we should not hesitate to fully explore a time-tested approach which has achieved great success. What made a miracle for American agriculture may, at least, stimulate steady and escalating improvements in American education.

III. SUMMARY OF HEARING TESTIMONY

Introduction

The purpose of the Subcommittee hearings on April 20 and 21 was to determine the extent to which the nation's educational research agenda reflects its key educational priorities, and the potential consequences for ignoring them. In addition, the Subcommittee hoped to initiate a debate about whether the Department of Education's research infrastructure—consisting largely of a network of labs, centers and clearinghouses—is adequate to meet the challenges identified in a host of recent influential reports on the current crisis in education, or whether new research entitles are required.

Additionally, Subcommittee Chairman Owens has expressed concern about the low status accorded educational R&D. While there appears to be a correlation between military capability and the Defense Department's investment in military R&D, the connection between educational research and improved practice is not obvious to most practitioners.

Yet another area of concern to the Subcommittee was the limited funding of educational R&D. Although educational research may never need the funding levels absorbed by the military R&D effort, Chairman Owens indicated that the Subcommittee intended to press for more adequate funding for the nation's educational research and development program.

With these concerns in mind, witnesses at the OERI hearings offered testimony and recommendations concerning OERI's budget, mission, structure, and priorities, as well as ways in which research methods and dissemination could be improved. The witnesses were: P. Michael Timpane, President, Teacher's College, Columbia University; Nathaniel M. Semple, Vice-President and Secretary, Research and Policy Committee, Committee for Economic Development; James S. Coleman, National Opinion Research Center; Faustine C. Jones-Wilson, The Bureau of Educational Research, School of Education, Howard University; Mary Hatwood Futrell, President, National Education Association; Eleanor Chelimsky, Director, Program Evaluation and Methodology Division, General Accounting Office; Alan C. Purves, Director of the Center for Writing and Literacy, State University of New York; Albert Shanker, President, American Federation of Teachers; Chester E. Finn, Jr., Assistant Secretary for the Office of Educational Research and Improvement, Department of Education; Charles Wallgren, Executive Vice-President, High/Scope Educational Research Foundation; James Hyman, Vice-President, Manpower Demonstration Program; Denis Doyle, Senior Research Fellow, The Hudson Institute; Christopher T. Cross, President of the University Research Corporation, and Chairman of the Laboratory Review Panel, OERI; John E.

Hopkins, Executive Director, Research for Better Schools; Susan Fuhrman, Director, Center on State and Local Policy, Development and Leadership, Rutgers University; Gordon Ambach, Executive Director, Council of Chief State School Officers; Nancy Cole, President, American Educational Research Association; Judi Conrad, Assistant Director, ERIC Clearinghouse on Handicapped and Gifted Children and Chair, Council of ERIC Directors (COED); Michael Kaplan, Director, Basic Research, U.S. Army Institute; and Richard E. Rowberg, Chief, Science Policy Research Division, Congressional Research Service. Grouped by subject area, some of the salient points made at the hearings are summarized below.

BUDGET

UNDERFUNDING OF EDUCATIONAL RESEARCH AND DEVELOPMENT

OERI's budget was the focus of a great deal of testimony at the hearings due to a widespread perception, among education researchers and the Department officials alike, that educational R&D within the federal government is underfunded. Long-term declines in funding were documented by a recent General Accounting Office (GAO) report, *R&D Funding: The Department of Education in Perspective*, which reveals significant declines in funding for educational R&D in both current and constant dollars between 1980 and 1987. During that period educational R&D declined 33% while defense R&D increased 81%. While Education accounted for 0.2% of the 1987 federal R&D budget, Defense accounted for 64%, up from 44% in 1980.[36]

The Subcommittee asked GAO to compare Department requests with Congressional appropriations for the period 1980 to 1988. Trends documented in the GAO report show that, in general, Administration requests have exceeded Congressional appropriations over the past eight fiscal years. Nevertheless, Administration critics argue that Congress is reluctant to fund OERI because its research agenda has been politicized.

Denis Doyle contrasted the underfunding of OERI to the burgeoning private sector investment in educational R&D. Doyle, who served as research director for the Committee for Economic Development (CED)—a consortium of businessmen and educators that documented the economic cost of the nation's high school dropout rate in an influential report, entitled *Children in Need* [36]—stated:

> By way of illustration, look at the federal government's expenditures on education research. With the most generous definition of education research, it is hard to find as much as $100 million in the overall federal budget. Contrast that to the amount we spend operating the Nation's elementary and secondary schools, about $150 billion per year. In turn, contrast that to the amount that a corporation like Xerox spends on research each year, $700 million.[37]

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[36] United States General Accounting Office, *Report to the Chairman, Subcommittee on Select Education, Committee on Education and Labor, House of Representatives*, "R&D Funding: The Department of Education in Perspective" (Washington, D.C.: GAO/PEMD-88-18FS, May, 1988) 6.

[36] Committee for Economic Development, *Children in Need: Investment Strategies for the Educationally Disadvantaged* (New York: 1987).

[37] United States House of Representatives, Subcommittee on Select Education, Committee on Education and Labor, *Hearings on the Office of Educational Research and Improvement (OERI)*, Statement of Denis Doyle, April 20, 1988.

ESTIMATES OF NEED

Assistant Secretary Chester Finn estimated that in order for the nation's public school system to match the private sector's investment in educational R&D, the federal government would have to spend considerably more than its current funding level of $124 million. His reasoning was as follows:

> The total [spending] for all education institutions, schools and colleges in the country, as I said, is in the vicinity of $300 billion at the present time. Obviously, if 1% of that were being spent on research and development activity it would be $3 billion. . . . If you . . . got down to the fact that the federal government accounts for . . . about $20 billion out of the $300 billion, that is to say, about 8%, 7% of the total expenditure on education comes through the Department of Education, and if we had a $3 million research budget and paid for 7 or 8% of it, we would be paying several hundred million a year—there is no doubt about that—through Department of Education sources alone for educational research.[88]

CAUSES OF UNDERFUNDING

Witnesses at the April 20–21 hearings remarked not only upon the underfunding of OERI relative to other R&D agencies within the federal government, but also upon the causes and consequences of this state of affairs. The office of the presidentially-appointed director of NIE was abolished in 1985 when the National Institute of Education (NIE) was reorganized as OERI. Its functions were assumed by the Assistant Secretary for Educational Research and Improvement, a political appointee who reports directly to the Secretary of Education. This change, according to John E. Hopkins, Executive Director of Research for Better Schools, effectively politicized the educational R&D apparatus and was viewed with distrust by Congress, which was subsequently less inclined to fund increases in OERI's budget. Regarding congressional skepticism of OERI, Hopkins said:

> We believe that the funding for educational R&D will increase when Congress is confident that the money will be used to support legitimate activity. The legitimacy of the activities will always be in question, though, when a handful of officials accountable only to themselves, determine both the research agenda and those who will carry it out. Unfortunately, the current structure of the Department of Education does not provide any separation between these functions. As long as that is the case, the situation is ripe for abuse. The structure needs to be changed.[89]

P. Michael Timpane, President of Teachers College at Columbia University, cites two reasons for the failure of educational R&D to receive more federal support: 1) the commonly held view that educational R&D is less systematic or methodologically rigorous than other sciences; 2) partisanship in the selection of projects to fund. A lack of advocacy on the part of constituent groups was a factor as well, he indicated. Timpane acknowledges the difficulty in undertaking educational research, because the learning process depends on human beings, whose behavior is unpredictable. However, he argues that it is misguided to abandon educational research just because of the problems associated with it:

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[88] Oversight hearings on the Office of Educational Research and Improvement [OERI], Testimony of Assistant Secretary Chester Finn, April 21, 1988.

[89] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of John E. Hopkins, April 21, 1988.

To conclude that educational research ought not to be pursued because it did not, in its early work, succeed widely would be the most misguided of policies. What if we had made such a decision in the early days of this century, when modern research in medicine or agriculture was newly possible? I think the answer is obvious.[40]

Nathaniel Semple, Vice President and Secretary of the Research and Policy Committee of CED believes that educational R&D has not been adequately funded in recent years because it has failed to document the economic returns on educational intervention in general. CED views education as an investment and is primarily concerned about the nation's economic return on that investment. In his testimony, Semple cited the Perry Preschool Program as the most well-documented educational research to date because it undertook a rigorous cost-benefit analysis to support its contention that pre-school programs help disadvantaged youth. Since the early 1980's financing for most of the follow-up work done by the High/Scope Educational Research Foundation on the Perry Pre-school Program has come from private sources rather than federal grants.

CONSEQUENCES OF UNDERFUNDING

Denis Doyle believes that the underfunding of educational R&D has contributed to the declining competitiveness of the U.S. in world markets. To illustrate the importance of R&D in the corporate sector, he pointed to the experience of Xerox Corporation, which recently recovered its market share from Japanese competitors by undertaking an ambitious (and expensive) R&D effort. Doyle believes that only by making a comparable investment in educational R&D, will American students become competitive with their counterparts in other industrialized nations.

Nancy Cole, President of the American Educational Research Association and Dean of the College of Education at the University of Illinois, believes that the lack of adequate resources has created a research base which is too narrow and has discouraged efforts to train new researchers. It has also fostered a climate which is hostile to educational research. Cole believes that the Subcommittee can correct this situation:

(1) by establishing mechanisms for setting priorities and realistic funding targets for those priorities, (2) by marshaling bipartisan support for these directions, and (3) by ensuring that objective procedures for the award of grants and contracts are followed.[41]

According to Eleanor Chelimsky, the Director of the Program Evaluation and Methodology Division of the General Accounting Office, underfunding has affected the quality of education information generated by the Department of Education. In her testimony Chelimsky summarized the findings of a recent GAO report, *Education Information: Changes in Funds and Priorities Have Affected Production and Quality*, which documented significant declines in the number and quality of departmental awards for research, statistics and evaluation. This report also documented a shift away for new data collection efforts; the investigation of fewer areas, includ-

[40] Oversight hearings on the Office of Educational Research and Improvement [OERI]. Testimony of P. Michael Timpane, April 20, 1988.

[41] Oversight hearings on the Office of Educational Research and Improvement [OERI]. Testimony of Nancy S. Cole, April 21, 1988.

ing areas critical to the education reform movement; and a shift away from individual research grants to institutional awards. While shielding key programs from budget cuts, this shift has necessitated the deemphasis of field initiated studies.[42]

Chelimsky believes that the quality of education information has suffered because of marked decreases in funding for education information, even as overall Department of Education funding has increased 38 percent in real terms since 1972. While Chelimsky is concerned about underfunding, she does not believe that "merely providing more money will allow the department to recover from the losses engendered by the reductions in awards."[43] Rather, Chelimsky believes that increased oversight is required to strengthen the information gathering function of OERI.

Alan C. Purves, who is chairman of the International Association for the Evaluation of Educational Achievement (IEA), testified that international assessments of student achievement conducted by his organization have suffered for want of adequate funding. According to Purves, the United States government has cut back drastically on its support of IEA in recent years, and has made no long-term commitment to fund its participation in the tests. Purves views this as unfortunate since IEA's databases are among the best in the world for making international comparisons. Purves believes that IEA's work is critical to improving educational systems worldwide. Yet because of a lack of commitment to IEA's efforts in the United States, the results of its assessments are not reaching American researchers.

James S. Coleman, Professor of Sociology and Education at the University of Chicago and author of the *Coleman Report* of 1966,[44] agrees with Purves that more researchers in the United States need IEA's data and that analysis of it should receive high priority. In his testimony Coleman cited IEA's recent preliminary report on international science achievement test results, *Science Achievement in Seventeen Countries: A Preliminary Report*, which documented the low level of academic achievement of American students.[45]

Coleman argues that because researchers focus more attention on teachers than students, "expenditures in education will be weighted toward direct transfers to schools, and from there to expenditures like summer salaries for teacher training, with a neglect of funding educational activities outside schools, or of giving educational consumers a voucher to invest (along with the child's time) in tutoring or another educational activity of their choosing."[46] Coleman recommends that the next administration redress

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[42] United States General Accounting Office, *Report to the Chairman, Subcommittee on Select Education, Committee on Education and Labor, House of Representatives*, "Education Information: Changes in Funds and Priorities Have Affected Production and Quality" (Washington, D.C.: GAO-PEMD-88-4, November, 1987).

[43] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Eleanor Chelimsky, April 20, 1988.

[44] United States Department of Health, Education, and Welfare, Office of Education, *Equality of Educational Opportunity*, James S. Coleman, et al. (Washington, D.C.: U.S. Government Printing Office, 1966).

[45] International Association for the Evaluation of Educational Achievement (IEA), *Science Achievement in Seventeen Countries A Preliminary Report*, (New York: Pergamon Press, 1988).

[46] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of James S. Coleman, April 20, 1988.

this problem by restoring the Department's investment in educational R&D, including research on activities that take place outside the school

Mission

Mission is generally construed as an organization's statement of purpose. On the subject of mission, Gordon M. Ambach, Executive Director of the Council of Chief State School Officers, expressed the view that the federal educational research bureaucracy is fragmented because it lacks a mission oriented research agenda. To remedy this situation, Ambach recommended the goal of 100 percent high school graduation by the year 2000. In addition Ambach believes that educational R&D should be directed towards improved policy and practice, i.e., it should emphasize applied research. In order to sustain this mission, Ambach recommends that educational researchers be held accountable by making them demonstrate that their research has resulted in improved practice.

Susan Fuhrman, Director of the Center for Policy Research in Education, questioned whether the goal of a 100 percent high school graduation rate would actually improve the quality of education:

> We could have people going through three years in math and science and not necessarily address what they're learning in math and science, particularly with our current level of assessment and testing. So, we could have a 100 percent graduation rate with people passing basic skills test perhaps to graduate and not necessarily raise the level of the workforce to address the problems of the 21st century.[47]

Assistant Secretary, Finn provided some background on the current mission statement for U.S. education policy set forth in OERI's authorizing legislation, which reads in part as follows:

> The Congress hereby declares it to be the policy of the United States to provide to every person an *equal opportunity to receive an education of high quality* (emphasis added) regardless of his race, color, religion, sex, age, handicap, national origin, or social class. Although the American educational system has pursued this objective, it has not yet attained that objective. Inequalities of opportunity to receive high quality education remain pronounced [20 U.S.C. 1221(a)(1) (1972)].

According to Finn, this language was originally part of a message prepared by a White House task force, including himself and Daniel Patrick Moynihan, that was sent to Congress by President Nixon in 1970. Nixon's message advocated the creation of NIE, and Congress subsequently included the language in NIE's enabling legislation.

There was considerable discussion at the hearing on whether OERI has promoted its mission, with some witnesses arguing that the labs and centers devote less attention than they should to research on the education of disadvantaged youth. John E. Hopkins, however, believes that the labs and centers' contribution in this critical area has been underestimated. When asked what percent of his laboratory's activity is devoted to disadvantaged youth, Hopkins responded:

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[47] Oversight hearings on the Office of Educational Research and Improvement [OERI], Testimony of Susan Fuhrman, April 21, 1988.

I will tell you that at my laboratory the vast majority of our effort is devoted towards at-risk children, and I would put the figure at my laboratory at 75 or 80 percent of our effort.

The reason for that is our funds are so slim that we only work on the highest-priority activities of the people with whom we partner, and their greatest concern is the advancement and benefit of at-risk children.

Since that is their concern and our concern, we have no difficulty whatsoever in finding willing partners to work in this area, whether you're talking about field studies, whether you're talking about development or dissemination, technical assistance or training, the focus of our work is predominantly on at-risk children.[48]

Since no existing evaluations of the labs and centers or field initiated studies have addressed this question, it is not possible to determine to what extent federally funded educational R&D has focused on disadvantaged youth.

Structure

EXISTING SYSTEM

Another issue discussed at the hearings was the impact of organizational structure on the educational research process. The federal educational research apparatus consists largely of a system of regional educational laboratories, national research and development centers, and ERIC clearinghouses, which are coordinated by OERI. Judi Conrad, Associate Director of the ERIC Clearinghouse on Handicapped and Gifted Children and Chair of the Council of ERIC Directors, believes that the system suffers from fragmentation due to the absence of sufficient coordination at the national level. Fragmentation within the system of labs, centers, and clearinghouses is compounded by a lack of coordination among the state and local educational R&D agencies and private educational efforts.[49] Lack of coordination within the ERIC system, in particular, has created a multiplicity of databases that are fraught with duplication.

Susan Fuhrman, who represented the American Educational Research Association's Organization of Research Centers at the hearings, described the goal of national centers as "mission-oriented, systematic, programmatic research." Because of their institutionalized settings and long-term contracts, they are ideal vehicles for conducting longitudinal research. Fuhrman expressed unhappiness with the Department's newly-created mini-centers, because their narrow scope detracts from the broad-based missions associated with the larger centers. Fuhrman is also critical of the Department's use of cooperative agreements rather than grants to fund the mini-centers, arguing that because of the high degree of Departmental involvement in them, "cooperative agreements hinder creation of the stable and predictable environment that centers need to accomplish their long-term missions."[50]

One of the hearing panelists, Christopher T. Cross, chaired a Laboratory Review Panel (LRP) that was created in 1987 to help Assistant Secretary Finn in evaluating the regional labs, with a

[48] Oversight hearings on the Office of Educational Research and Improvement [OERI], Testimony of John E. Hopkins, April 21, 1988.

[49] Oversight hearings on the Office of Educational Research and Improvement [OERI], Testimony of Judi Conrad, April 21, 1988.

[50] Oversight hearings on the Office of Educational Research and Improvement [OERI], Testimony of Susan Fuhrman, April 21, 1988.

view towards their reauthorization in 1991. The LRP critique makes the following observations: (1) the missions of the labs as detailed in their plans are vague; (2) the methods by which the labs have determined their priorities are also unclear; (3) "with and through" strategy for servicing state education agencies needs further examination; (4) whether the labs should be proactive or reactive needs to be determined; (5) there appears to be little collaboration between the labs and other Departmental programs; (6) there is little collaboration among labs; (7) the labs provide few services to non-public schools; (8) the labs are subject to "over-regulation" and excessive reporting requirements from OERI; (9) the labs' funding mechanisms vary widely and need to be evaluated; (10) there are organizational and financial problems associated with the longevity of the labs; (11) the LRP is concerned about service strategies, financing and aspirations of three newer labs.[51]

The LRP's report includes the following recommendations for the Department: making programmatic realities more compatible with contractual requirements; eliminating long procedural delays in the Contracts Office; examining the labs' financial arrangements, including the use of fees to offset costs; making paperwork more relevant; examining the "with and through" strategy; examining the process of needs assessment; ensuring that OERI provides more coordination; examining the performance of the labs from the viewpoint of the field recipient.[52]

John Hopkins believes that the restructuring of OERI in 1985 effectively politicized its operations and that Congress should consider restoring the autonomy of OERI, just as it has done for the Center for Education Statistics in the recently enacted School Improvement Act of 1987. However, he also believes that prior to reauthorization, Congress should fund a commission such as the National Academy of Education or the National Academy of Science to "study new institutional arrangements for conducting educational R&D."[53] Following authorization of the structure(s), the Subcommittee should adopt a supportive rather than combative oversight role.

As part of this recommendation, Hopkins advocates the creation of a half dozen *national* laboratories modeled after the Argonne and Brookhaven labs that would undertake long-term research on entire problem areas. These labs would supplement rather than supplant the regional labs.

AFT President Albert Shanker agrees that politicization of OERI has hampered systematic educational research. However, he believes that this problem is not unique to the present administration:

> This peripatetic and politicized dance of priorities in educational research is not exclusive to the present Administration of the Department of Education and OERI,

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[51] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Christopher T. Cross, April 21, 1988.

[52] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Christopher T. Cross, April 21, 1988.

[53] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of John Hopkins, April 21, 1988.

though it may be more extreme. It has been a problem at least since the creation of NIE, the forerunner of OERI, and has persisted despite various reorganizations.[54]

Elsewhere Shanker says:

The history of our federal education research effort as incarnated by NIE and OERI has been a short, troubled, and turbulent one. It has been marked by a surfeit of politics, short-term thinking, a declining budget and declining confidence, and much demoralization. There is tragedy in that, not only because the promise was so great but because so much good work has indeed been produced.[55]

Given that these problems have persisted despite changing institutional arrangements, Shanker does not recommend yet another reorganization. Rather, he advocates reconsideration of the basic pedagogical paradigm which has provided the basis for educational practice since the inception of public schools in the United States. This paradigm drives a research agenda that seeks incremental improvement rather than wholesale change.

In Shanker's view, unwillingness on the part of both researchers and practitioners to embrace new models is unique to education:

In any other field, for example, conflicting results or ambiguity signals a new point of departure, a redoubling of efforts. In education, it frequently spells the end of support for a line of research, a budget cut—or, at the very least, an occasion for ridicule . . . I know of no other fields save education whose structure, technology and basic ways of operating (and problems) have remained unchanged for over 150 years.[56]

Shanker proposes a commission to study the problems associated with educational research and to undertake a comparative analysis of how other federal R&D agencies conduct research in their respective fields. While he is not optimistic that the educational system will be transformed in the foreseeable future, he believes that a careful examination of the role of the federal government in educational research will substantiate his claim that the existing model is inadequate.

Priorities

Eleanor Chelimsky expressed concern about a fundamental shift in OERI's research priorities, which was documented in the GAO report, *Education Information:*

First, not only was less information produced: we also found changes in priorities. For the National Institute of Education's portfolio of activities, there was a shift away from new data production to service-oriented activities, such as dissemination of results and the provision of expert witnesses in civil rights cases. Sixty-five percent of NIE's 1980 awards were for new data collection, but only 11 percent of the 1986 awards were dedicated to this function. In our view, this shift was so dramatic that the availability of up-to-date information to disseminate to teachers and other practitioners may be seriously jeopardized.[57]

While some of the shift in priorities can be explained by reductions in both the number and amount of research awards, some of it is attributable to management turnover during the 1980's. For

[54] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Albert Shanker, April 20, 1988.
[55] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Albert Shanker, April 20, 1988.
[56] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Albert Shanker, April 20, 1988.
[57] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Eleanor Chelimsky, April 20, 1988.

example, research in the area of higher order thinking skills, was abandoned because: "Despite a 3-year effort to develop research proposals in this area—an effort that resulted in 30 proposals being recommended for funding by panels of experts—no awards were made. A change in directors had meant that this was no longer seen as a priority area." [58]

James Coleman also expressed unhappiness with OERI's priorities. Coleman believes that educational research is skewed in favor of the producers of education, namely teachers, rather than towards children, who are the real consumers of education. Coleman commented that unless the direction of educational research is changed, ". . . The weight of expenditures of the Department of Education will be focused on matters of interest to the producers: expenditures on research will be weighted on research on *schools and teachers*, to the neglect of the study of children's learning (or not learning) outside school." [59] Coleman recommends that Congress redefine the Department's mission to encompass learning both in and out of school.

P. Michael Timpane, on the other hand, believes that the federal government has done a good job of identifying its educational research agenda. He cites literacy and reading, effective schools, bilingual education and school finance as areas in which it has achieved significant progress. Timpane recommends education of disadvantaged Americans, teaching and school reform, and learning as the most important priorities for educational research in the future.

Mary Hatwood Futrell, President of the National Education Association, does not share this sanguine assessment. Furthermore, she believes that the Subcommittee poses the wrong question when it asks whether the nation's research agenda reflects America's key education priorities: "A more fundamental question is whether America's education priorities reflect the conclusions of educational research." [60] In her view the nation's educational research agenda has suffered because teachers are excluded from the reform process and because the process has been overly politicized. Futrell believes that the problem of politicization can be corrected by striking a balance between field-initiated and Department-sponsored research. She also advocates research that evaluates existing educational reforms; that is applied rather than basic; and that emphasizes curriculum, cognitive theory, and the needs of "at-risk" students.

Howard University Professor Faustine Jones-Wilson's recommendations for educational research include more research on: effective teachers, principals and staff; evaluation and monitoring; networking among teachers, students, parents and administrators; curriculum; class size, grouping and class scheduling; parental volunteers; standardized testing; high school work-study; and educational philanthropy.

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[58] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Eleanor Chelimsky, April 20, 1988.
[59] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of James S. Coleman, April 20, 1988.
[60] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Mary Hatwood Futrell, April 20, 1988.

Nathaniel Semple of CED argues for research that explores the economic returns on education. He also listed several programmatic areas that warrant improved data collection and analysis: comparative data on educational achievement; adult learning deficiencies; employment readiness; international comparisons of educational achievement; and educational technology.[61]

Dissemination

The GAO report on Education Information documented an increased emphasis on dissemination of research findings at the expense of new data collection efforts. Nevertheless, experts both inside and outside of the Department remain dissatisfied with the results of the effort to translate promising research into improved practice. In a recent article, Assistant Secretary Finn commented, "[A]s of yet, much potentially valuable research information has made little impact on schools and classrooms. Perhaps this is because we have yet to come up with effective methods of translating research findings into forms that practitioners can use." [62] Faustine Jones-Wilson is particularly concerned about the lack of implementation of promising research findings developed under a whole host of programs for disadvantaged youth. Research results from the Perry Preschool, Head Start, Title 1, Chapter 1, Job Corps, and effective schools programs have been available for years. Yet, comments Jones-Wilson:

> My guess is that the average third grade teacher or average fifth grade teacher does not know what the research has uncovered, and the researchers in general do not go into the classrooms of our Nation to work with the teachers, so what we need here clearly is better articulation between the researchers and the information that they uncover, and the persons who are on the firing line who are supposed to implement those programs.[63]

In order to remedy this situation, Judi Conrad believes that a National Education Information Dissemination Policy is required. She also stated that:

> Implementation would have to be effected through a coordinating entity charged with responsibility for tracking the national RD&D efforts, analyzing the impacts of those efforts, communicating with all system participants, and otherwise promoting educational research, development, and dissemination as vital to the national welfare.[64]

Research Methods

At the OERI hearings, Charles Wallgren represented High/Scope Educational Research Foundation, one of the most respected institutions in the field of early childhood education and research. Wallgren related that High/Scope Foundation was created in 1970 by David P. Weikart to continue the work of the Perry Preschool Program and has received funding from both the federal government and private foundations.

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[61] Oversight hearings on the Office of Educational Research and Improvement [OERI], Testimony of Nathaniel M. Semple, April 20, 1988.
[62] Chester E. Finn, Jr., "What Ails Education Research," *Educational Researcher*, January/February, 1988, 8.
[63] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Faustine Jones-Wilson, April 20, 1988.
[64] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Judi Conrad, April 21, 1988.

To demonstrate its success in the area of early childhood intervention, Wallgren pointed to the results of a recent follow-up study of the Perry Preschool Program, which began in 1962. This study has revealed lower dropout rates, higher employment rates, fewer arrests and lower teenage birth rates among those who participated in the program. In addition a rigorous cost-benefit analysis demonstrated considerable taxpayer benefits in the form of reduced welfare payments and crime costs, as well as higher tax revenues garnered from program participants.

Wallgren provided the following description of High/Scope's model of longitudinal research; (1) research phase, consisting of experimentation at the local level; (2) development phase, consisting of curriculum development and teacher training; (3) demonstration phase, consisting of a single test at the local level; (4) dissemination phase, consisting of field testing at a number of sites; (5) implementation phase, consisting of regional implementation; (6) public policy phase, consisting of institutionalization of program at state and/or federal levels in consultation with corporate decision-makers.

Wallgren explained that the Perry Preschool Program was a success because it was based on solid research and developed a consistently positive set of findings, including a cost benefit analysis that provided useful information to decision-makers. Another reason for High/Scope's success has been the commitment of top level management and personnel policies which have encouraged staff to stay with the organization.

Michael Kaplan, who is Director of Basic Research at the U.S. Army Research Institute, described the R&D model employed by the Institute's training research laboratory which includes the following phases: (1) basic research; (2) exploratory development; (3) advanced development; (4) engineering or program development. In response to questions, Mr. Kaplan advised that his office has let:

> . . . some 60 research contracts, of which 80 percent have come to us from universities. We are approached by university scientists and others in very much the same way that the National Institutes of Health and the National Science Foundation are approached, and we review these proposals that we receive in an appropriate way for merit and for ultimate relationship to the applied programs that my institute has to deal with.[68]

Mr. Kaplan noted that training techniques developed by the Army Research Institute have been employed in a variety of settings, including General Motors and the State of North Carolina, and that the duration of its contracts is typically three years.

Manpower Demonstration Research Corporation (MDRC), another nonprofit corporation specializing in longitudinal research, was represented at the hearings by James Hyman, Vice President for External Affairs. According to Hyman, MDRC was established in 1974 by the Ford Foundation and the federal government to undertake demonstration research on voluntary education and training interventions for AFDC recipients. Since then it has undertaken social demonstrations of a number of different government-sponsored employment programs. Hyman believes that social dem-

[68] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of Michael Kaplan, April 21, 1988.

onstrations are useful in determining which programs "work." He defines a social demonstration as "a specific program model that is operated for a specified duration and subjected to rigouous evaluation to determine over some acceptable follow-up period, the impacts it has had on its participants." [66]

Hyman believes that demonstrations are most useful when: the solutions to problems are not already known; the problem has assumed national importance; the need for information about the problem and its solution(s) is critical; and there are only limited resources available to focus on the problem. Other requisites of useful demonstrations include: a solid research base; clearly specifiable and testable propositions; the demonstration must be practicable; demonstration sites must be carefully selected; technical and operational assistance must be available to site operators; and the demonstration must be carefully monitored.

In discussing the feasibility of using demonstration research to test promising education programs, Hyman believes that ethics is a key concern in that some educators may object to withholding the benefits of promising programs from children in control groups. Another problem is the long-term nature of educational follow-up studies. Nevertheless, Hyman believes "that demonstration research, properly applied and managed, can be a valuable tool for policy and program development in education. It allows for the formulation of policy and the implementation and design of programs on the basis of approaches proven effective as opposed to approaches merely deemed to be good ideas." [67]

[66] Oversight hearings on the Office of Educational Research and Improvement [OERI], Testimony of James B. Hyman, April 21, 1988.

[67] Oversight hearings on the Office of Educational Research and Improvement [OERI], Statement of James B. Hyman, April 21, 1988.

IV. SUMMARY OF ADDITIONAL DOCUMENTS

In order to enhance the status of educational research within the federal R&D establishment, it will be necessary to make a strong case for additional funding and changes in policy. GAO reports have documented both the funding cuts OERI/NIE has experienced since 1980 and the declines in quantity and quality of educational information that these cuts have produced. Another GAO report documents unacceptably high national dropout rates and the consequences of failing to graduate from high school. Reports produced by the International Association for the Evaluation of Educational Achievement (IEA) document the mediocre performance of American students on international tests and suggest that the problem is systemic. Various nonprofit organizations have produced reports evaluating the success of federally-sponsored programs for disadvantaged youth, including Head Start and JOB START. The *Journal of Negro Education* devoted its Summer, 1985 issue to effective schools for disadvantaged youth. Finally, the Rand Corporation produced a report that identifies the kinds of policies which are most likely to result in effective schools. A summary of these documents follows.

R&D Funding: The Department of Education in Perspective, GAO, 1988.

This recent General Accounting Office (GAO) report documents the underfunding of educational R&D relative to other departments within the federal government. It reveals significant declines in funding for educational R&D in both current and constant dollars between 1980 and 1987. GAO also documents substantial declines in funding for program evaluations undertaken by most Executive Branch departments including Education, which declined 34% in constant dollars between 1980 and 1984.[68]

Education Information: Changes in Funds and Priorities Have Affected Production and Quality, GAO, 1987.

This GAO report indicates that the federal government's role in sponsoring educational research and development and monitoring of academic achievement was seriously neglected between 1980 and 1985, and that leadership in this critical aspect of education was lacking due to dramatic turnover. For example, NIE had a total of seven directors between 1980 and 1986, and at least sixteen persons served in only five other top management positions during that period.[69]

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[68] United States General Accounting Office, *R&D Funding: The Department of Education in Perspective*, (Washington, D.C.: GAO/PEMD-88-18FS, May, 1988) 6.

[69] United States General Accounting Office, *Education Information: Changes in Funds and Priorities Have Affected Production and Quality*, (Washington, D.C.: GAO/PEMD-88-4, November, 1987).

The quality of educational R&D has suffered also. GAO found that the Common Core of Data (CCD), an information reporting system maintained by the National Center for Education Statistics (NCES), deteriorated markedly. For example, the *Digest of Education Statistics* published by NCES and based upon data from the CCD, is out-of-date and inaccurate.

It is evident from this GAO report that much of what was funded was already mandated by legislation, while studies that were not specifically required by law, such as a long-term evaluation of the impact of the Education for the Handicapped Act, were terminated.

School Dropouts: The Extent and Nature of the Problem, GAO, 1986

At the request of Education and Labor Committee Chairman Hawkins and Representatives Goodling and Hayes, the GAO produced a report on high school dropouts in the United States in 1986. This report analyzed data from the Current Population Survey (CPS), a monthly survey of the U.S. population sponsored by the Bureau of Labor Statistics and conducted by the Bureau of the Census. It also reviewed analyses of two ongoing national longitudinal surveys—High School and Beyond (sponsored by the Department of Education) and the National Longitudinal Surveys of Labor Market Experience (sponsored by the Department of Labor).

CPS data show that although the percentage of high school graduates has more than doubled in the past 40 years (and the percentage of college graduates more than tripled), it cannot be inferred that the graduates' educational achievements have remained the same. In fact, there is evidence that in the late 1960's and in the 1970's, there was considerable decline in high school students' achievements.[70]

One of the national longitudinal surveys show that the drop-out rate for youth from households with low-income, low-skill wage earners and limited educational backgrounds was about three times the rate of those from the highest end of the socio-economic scale.[71]

Additionally, GAO is concerned about the high dropout rate among minority youth: "While the data we reviewed show that youth are far more likely to complete high school today than 20 years ago, the proportions of dropouts, especially poor youth and blacks and Hispanics, is an issue warranting the attention of the education community." [72]

The economic consequences of dropping out are profound. For example, according to CPS data for October 1985, about 1 in 4 dropouts ages 16-24 were unemployed, compared with about 1 in 10 high school graduates who were not enrolled in school.[73]

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[70] United States General Accounting Office, *School Dropouts: The Extent and Nature of the Problem*, (Washington, D.C.: GAO/HRD-86-106BR, June, 1986) 5-8.
[71] United States General Accounting Office, 9-10.
[72] United States General Accounting Office, 13.
[73] United States General Accounting Office, 22.

Science Achievement in Seventeen Countries: A Preliminary Report, International Association for the Evaluation of Educational Achievement, 1988.

Between 1983 and 1986 the International Association for the Evaluation of Educational Achievement (IEA) tested the science achievement of students in some seventeen countries, primarily from among industrialized nations in the free world. The tests were administered to ten year olds, fourteen year olds and those completing their final year of high school. These groups were designated Population 1, 2 and 3 respectively. In Population 3, separate tests in biology, chemistry and physics were administered to students taking science courses. Scientific sampling techniques were employed to ensure that the results fairly represented the populations surveyed.

Results from IEA's preliminary report indicate that while Japan, Korea and Hungary (one of only two socialist countries participating in the study) excelled at the elementary level, England and two of its former colonies, Hong Kong and Singapore, excelled at the Population 3 level. U.S. students, on the other hand, did poorly at all levels. For example, the vast majority of schools in the U.S. scored below the mean of the lowest scoring schools in countries that excelled in biology and physics. Among the nations surveyed, only schools located in Italy performed worse than U.S. schools.[74]

The Underachieving Curriculum: Assessing U.S. School Mathematics from an International Perspective, International Association for the Evaluation of Educational Achievement, 1987.

The findings from IEA science tests parallel those of mathematics achievement tests sponsored by IEA In 1982 as part of the Second International Mathematics Study. These tests surveyed eighth and twelfth graders (designated as Population A and population B, respectively) in twenty countries, including the U.S. Some of the principal findings of this study, which were published in a report funded by the National Science Foundation in 1987, are summarized below.

Japan obtained the highest scores in the five subject areas included in the Population A test—arithmetic, algebra, geometry, statistics and measurement. By contrast U.S. students performed at or below the international average in all subjects except computational arithmetic. Also, U.S. eighth graders performed worse that U.S. participants in the First International Mathematics Study conducted twenty years earlier.[75]

The Second International Mathematics Study also documented that the mathematical yield—defined as the product of the proportion of high school students enrolled in mathematics courses and how much they know—is very low for U.S. students, only three percent of whom take calculus. Experts were also concerned about

[74] International Association for the Evaluation of Educational Achievement, *Science Achievement in Seventeen Countries: A Preliminary Report*, with a Preface by Alan C. Purves (Elmsford, New York, Pergamon Press, 1988).

[75] Curtis C. McKnight, et al., *The Underachieving Curriculum: Assessing U.S. School Mathematics from an International Perspective* (Champaign, Illinois: Stipes Publishing Company, 1987) vi-viii.

the slow pace of mathematics instruction in the U.S. In the U.S. grade schools mathematics is dominated by arithmetic instruction and high school mathematics by algebra instruction. In Japan, by contrast, the mathematics curriculum is dominated by algebra at the eighth grade level and calculus at the twelfth grade level.

To correct these deficiencies, the report recommends a fundamental revision of U.S. mathematics curriculum, including: elimination of excessive repetition of topics; broadening of the curriculum in junior high school with topics in geometry, probability and statistics, as well as algebra; increasing the proportion of students enrolled in advanced mathematics; incorporation of curriculum changes into mathematics textbooks; and professionalization of the mathematics teaching career.[76]

Changed Lives: The Effects of the Perry Preschool Program On Youths Through Age 19, High/Scope Educational Research Foundation, 1984.

Probably one of the most successful nonprofit corporations to influence government education policy in recent years is the High/Scope Educational Research Foundation, which evaluated the Perry Pre-School Program implemented by the school district of Ypsilanti, Michigan between 1962 and 1967. The Perry Preschool Program was premised on the assumption that early childhood intervention could improve the intelligence, aptitude and academic performance of disadvantaged youth. Though this assumption has been challenged time and again by critics of the Perry Preschool Program and the nationwide Head Start program that it helped to spawn, this recently published longitudinal study of the effects of the Perry Preschool Program on participants through age 19, indicates that the impact was substantial. Not only did the program have a positive immediate impact on participant IQ levels, it demonstrated significant long-term impacts in the areas of education, employment and social responsibility.[77]

Launching JOBSTART, MDRC, 1987.

Another nonprofit corporation with proven expertise in the field of demonstration research is the Manpower Demonstration Research Corporation (MDRC), which has undertaken a number of key social demonstrations since its formation in 1974. At that time MDRC was commissioned by the federal government with financing from the Ford Foundation to study the effects of supported work initiatives [voluntary work for welfare recipients]. More recently MDRC was commissioned by the Labor Department to evaluate the results of providing job training and remedial education to high school dropouts under Title IIA of the Job Training Partnership Act of 1982 (JTPA) in a demonstration called JOBSTART. The target population consists of over one thousand eco-

[76] McKnight, xii-xiv.

[77] John R. Berrueta-Clement, et al., *Changed Lives: The Effects of the Perry Preschool Program on Youths Through Age 19,* with a Preface by David P. Weikart, Monographs of the High/Scope Educational Research Foundation, no. 8 (Ypsilanti, Michigan: High/Scope Educational Research Foundation)

nomically disadvantaged high school dropouts between the ages of 17 and 21, who demonstrate below eighth grade reading levels.[78]

The Journal of Negro Education, Summer, 1985.

This journal devoted its Summer, 1985 issue to a discussion of "effective schools," a term that connotes those urban schools that "can effectively teach youngsters who have been categorized as 'underprivileged,' 'disadvantaged,' or 'underachievers.'"[79]

One of the contributors, Wilbur B. Brookover, comments that the perception of minority schools as somehow ineffective is a function of the ethnocentricism of our society, which encourages whites to brand as inferior any groups that fail to perform satisfactorily on IQ tests and norm referenced achievement tests. Brookover asserts that the notion "ineffective schools" is itself a biased concept employed by the dominant culture in order to reinforce racial stereotypes. Racial stereotyping has replaced overt segregation as a means of denying equality of educational opportunity to minority students.[80]

Barbara Sizemore, author of, "Pitfalls and Promises of Effective Schools Research," was one of three researchers who undertook a study funded by NIE in 1980 to determine why three high achieving predominantly black public elementary schools in Pittsburgh, Pennsylvania, had defeated the common stereotype that blacks are intellectually inferior and culturally deprived, and that their schools are inefficient, underfunded and ineffective.[81] The findings, which were published in *An Abashing Anomaly*, identify the success of these schools.[82]

Some educational researchers believe that the goals of the effective schools movement and those of the school reform movement are inherently antithetical. Beverly Caffee Glenn shows that many advocates of school reform think that equality of educational opportunity and getting a quality education are mutually exclusive goals.[83]

While many educational researchers devote their energies to the question of how the schools can better address the needs of disadvantaged youth, E. Gnanaraj Moses, in his "Advantages of Being Disadvantaged: A Paradox," argues that gifted children can often surmount and even benefit from the hardships of a disadvantaged background. Moses asserts that poverty-stricken children are encouraged to become more self reliant and creative because they lack the material advantages of other youth. Poverty itself acts as a motivator in these children.[84]

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[78] Patricia Auspos and Marilyn Price, *Launching JOBSTART: A Demonstration for Dropouts in the JTPA System* (New York: Manpower Demonstration Research Corporation, 1987).

[79] Faustine C. Jones-Wilson, "Editorial Comment: A Right to Education?" *Journal of Negro Education* 54 (Summer, 1985): 255.

[80] Wilbur B. Brookover, "Can We Make Schools Effective for Minority Students?" *Journal of Negro Education* 54 (Summer, 1985): 262-63.

[81] Barbara A. Sizemore, "Pitfalls and Promises of Effective Schools Research," *Journal of Negro Education* 54 (Summer, 1985): 271.

[82] Barbara Sizemore, et al., *An Abashing Anomaly: The High Achieving Predominantly Black Elementary School* (Washington, D.C.: National Institute of Education, Grant #G-80-0006, January 1983).

[83] Beverly Caffee Glenn, "Excellence and Equity: Implications for Effective Schools," *Journal of Negro Education* 54 (Summer, 1985): 290.

[84] E. Gnanaraj Moses, "Advantages of Being Disadvantaged: A Paradox," *Journal of Negro Education* 54 (Summer, 1985): 337.

Steady Work: Policy, Practice and the Reform of American Education, RAND Corporation, 1988.

The authors draw central lessons from recent attempts to reform schools through the use of public policy. They high-light the fact that mistakes of past public policy making can be remedied by strenghtening the connection between policy makers and practitioners.

Reviewing the history of federal educational reform efforts since the 1960's, the authors give policy makers a mixed report card. Studies evaluating some of these initiatives indicate that they were most successful when they adopted a "problem solving" approach in using federal money, and were locally based, relying on local personnel to administer and develop new programs. The authors conclude that policy makers should be sensitive to the needs of practitioners, ". . . using policy less to mandate resource allocation, structures and rules, and more to initiate development. It means commissioning people to work in real schools to fashion workable solutions to real problems, allowing those solutions the opportunity to fail and the time to succeed." [85]

[85] Richard F. Elmore and Milbrey W. McLaughlin, *Steady Work: Policy, Practice and the Reform of American Education* (RAND Corporation, 1988): 61.

APPENDIX A

Towards a Vital Modification of OERI to Maximize Insulation From Partisan Interference and Executive Abuse

The following discussion examines the possibility of placing an educational research, development and dissemination function within a new administrative and policy-making context.

PRELIMINARY ANALYSIS

Over a half a century of federal involvement in educational research has taught us that there are a few significant ingredients necessary for a successful educational research enterprise to flourish. One necessary element is broad bipartisan agreement as to goals of educational research, goals which are also shared by the educational community. A second component is an administrative structure that enables the executive branch to translate that consensus into effective programs. A third factor is a group of capable administrators, "educational research managers," who understand the limits as well as the potential of educational research, and are able to articulate the needs of the relevant programs to Congress. It has been well documented elsewhere that those ingredients have not always been present at any one time.[86] In order to place OERI on a sound footing it will be important to learn from past mistakes and focus on how to carefully rebuild an agency desperately in need of stability, one that will be able to plan ahead to face the tremendous challenges of the next century.

A short review of the recent history of federal involvement in educational research reveals that it was the intent of Congress from the beginning to create a depoliticized educational research agency. The Director of the Institute was to be selected by the President and confirmed by the Senate. Additionally, a 15-member advisory council nominated by the President and confirmed with the advice and consent of the Senate, was authorized to set policy as well as review the conduct of the new agency. The early history of the board was a troubled one. The Secretary of HEW was interested in imposing his imprimatur on the board, and the nominating process was fraught with conflict and delay. The stakes for membership to the board were higher than most such entities as it was policy-making and subsequent appointments brought into play the preferences and pressures of the Secretary, the Assistant Secretary, the NIE director, education interest groups, the White House personnel office and Congress. Whereas Congress intended to create a representative body, the reality was somewhat different. It was difficult, for example, to term the first NCER as "representative" when there was no representation from the two national teacher associations, the foundation community, Chief State School Officers and State Boards of Education. Part of the failure of NIE to make its case before Congress can be partly attributed to NCER's inability to secure the support of the wider educational community.[87]

Although NIE was reorganized in 1986 partly in response to some of the difficulties experienced by the agency, its successors, the Office of Educational Research and Improvement (OERI), added a new set of difficulties without solving some of the basic structural problems noted above. The amendments proposed by the administration and approved by the 99th Congress theoretically enabled the coordinated collection and dissemination of research data and reports by placing all educational research and development and related activities into one office. However, the price of this new efficiency of operations was high. By granting so much authority to the

[86] L. Sproull, S. Weiner, and D. Wolf, *Organizing an Anarchy: Belief, Bureaucracy and Politics in the National Institute of Education* (Chicago, University of Chicago Press, 1978) and R. Dershimer *The Federal Government and Educational R&D*, (Lexington, Lexington Books, 1976).

[87] Sproull et al., 85.

Assistant Secretary, it politicized the Office of Educational Research even further and reduced the only possible counterweight to the Assistant Secretary's power, NCER, to advisory rather than a policy-making status.

The effects of centralizing so much power in the hands of one person were quickly felt in many areas. For example, the newly reauthorized Center for Educational Statistics (CES) was criticized for not producing reliable and impartial statistical information and this led the prestigious National Academy of Sciences (NAS) to conclude in a 1986 report that unless there were "wide-ranging actions to change both the image and reality of the Center, we are unanimous in our conviction that serious consideration should be given to abolishing the Center and finding other means to obtain and disseminate the education data." [88] Subsequently, the 100th Congress endorsed the NAS recommendation that the center be given quasi-independent status within the Department of Education. Similar concerns as to OERI's susceptibility to political pressures, have informed the writing of this report.

The Subcommittee hearings exposed another set of weaknesses: the research agency's inability to coordinate with other relevant federal offices performing pertinent educational research and OERI's lack of support for long-term research. These latter problems, although more endemic to the business of federal educational research policy-making rather than directly due to the recent reorganization, remain to be seriously addressed. Prior efforts to deal with the questions of how to increase coordination such as the Federal Interagency Committee on Education (FICE), created under the provisions of the Education Organization Act of 1979, have not met with great success.[89] Currently, representatives of twelve agencies or departments meet no more than four times a year, and work through subcommittees that meet on a monthly basis to discuss overlapping concerns. Through these subcommittees and the full committee, FICE studies and recommends coordinated federal educational efforts to ensure: consistent administrative policies; effective interagency communication to avoid duplication; and coordination of similar programs to improve efficiency and service delivery. After eight years of functioning, the realistic capacity of such an interagency group to bring about meaningful change is open to question. To cite just one example of the ongoing problems, the Department of Education funds educational clearinghouses which, in some cases, overlap in subject-area scope with ERIC clearinghouses, administered through OERI. These clearinghouses do not coordinate their informational dissemination activities and do not even share categorization systems.[90] The waste of resources seems even more dramatic when it is considered that the military spends five times more than the civilian sector on educational technology and none of that information is disseminated through the ERIC system.[91]

PROPOSAL FOR AN INDEPENDENT EDUCATIONAL RESEARCH, DEVELOPMENT, AND DISSEMINATION BOARD

The foregoing analysis indicates that in order to foster a healthy educational research, development, and dissemination system, the agency charged with that responsibility requires a significant degree of insulation from partisan interference. Once the office is insulated from the partisan pressures that inevitably come when the agency is located too close to the Secretary's Office, the research products of the agency can be provided greater legitimacy and credibility. NASA, NIH and NSF—the federal research agencies that have been more successful in attracting federal funds comensurate with the importance of their research activities—all share administrative mechanisms that allow research goals to be planned on a long-term basis. Additionally, because key stakeholders are given a role in helping to shape policy either through an advisory board structure (as is the case of the National Institutes of Health) or through a governing board (as is the case of NASA and the

[88] House of Representatives Report 100-95, "School Improvement Act of 1987," 97.

[89] Public Law 96-88, Department of Education Organization Act of 1979.

[90] There are, for example, three clearinghouses funded by the Department of Education devoted to some aspect of special education: the National Clearinghouse for the Education of the Handicapped; the National Clearinghouse for Postsecondary Education of the Handicapped; and the National Clearinghouse on Careers and Employment in Special Education, which apparently do not communicate with the ERIC clearinghouse devoted to Handicapped and Gifted Children, or the ERIC clearinghouse on Audit, Career and Vocational Education. Nor does the ERIC clearinghouse on Languages and Linguistics correspond with the Department of Education's Clearinghouse on Bilingual Education.

[91] United States Congress, Office of Technology Assessment, *Power On. New Tools for Teaching and Learning*, September, 1988, 27, and testimony of Judi Conrad, United States House of Representatives, Subcommittee on Select Education, Committee on Education and Labor, Hearings on the Office of Educational Research and Improvement, April 21, 1988, 117.

National Science Foundation), there is the possibility of greater coordination taking place between the representative agencies on the board.

The National Science Board (NSB), which helps to set policy for the National Science Foundation, provides one potential model for a reconstituted educational research advisory council. The NSB consists of 24 public members chosen from among the scientific, academic, and business communities and the Director of the NSF, who serves as an ex-officio member of the Board. NSB members are appointed by the President, with the advice and consent of the Senate, serve on a part-time basis for six year terms. The National Science Board was established to provide the National Science Foundation with a:

> . . . consensus generating body—a body which reconciles the independence of science with public demand for accountability in determining priorities for Federal research expenditures. . . . The board's major function was "to maintain the integrity of NSF, including ensuring that senior officials are not chosen for partisan political reasons, keeping staff accountable, to the external scientific community, and ensuring the objectivity of the peer review process."[88]

According to Dr. Philip Handler, former NSB Chairman, and until 1981 the President of the National Academy of Sciences, an important "informal function" of the body, was to ". . . shield the director and his staff from the furious gusts of political change."[89]

A new educational research, development and dissemination board would seek to combine many of the features of the NSB that have helped to preserve NSF's world-renowned integrity, as well as provide an opportunity for greater coordination among federal agencies. To ensure that the new board does not suffer the same fate as the old NCER and become the victim of Executive Branch delays, Congress should prohibit the expenditure of any funds until the new board has been fully constituted.

The board should be responsible for setting priorities, as well as long-term and short-term goals for the educational research mission. Additional functions should include responsibility for assessing peer-review competitions, evaluating the research products, as well as reviewing appeals hearings.

Membership, limited to a maximum of 29, could be composed as follows:

1. Executive membership: the Directors of Research for the Departments of Defense and Labor, Assistant Secretary for the Office of Educational Research and the Secretary for Education as well as the Directors of the National Science Foundation, National Institutes of Health, the National Endowment for the Arts, the National Endowment for the Humanities (NEH) as well as the Librarian of Congress.
2. One representative from each of the two major national teacher associations and one representative of a national parents organization.
3. One representative from the Chief State School Officers, and one from local school superintendent associations.
4. One representative from the Foundation community.
5. Six representatives from private industry: two to be appointed by the President; one appointed by the majority and minority leaders of the House and Senate.
6. Remaining representation to be drawn from the educational research community; one to be appointed by the majority and minority leaders of the House and Senate and three to be appointed by the President.
7. The Board would be chaired by the Vice President of the United States in order to accord it the appropriate prestige and status.

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[88] Congressional Research Service, United States Library of Congress, "The National Science Board: Science Policy and Management for the National Science Foundation, 1968-1980," report for the Subcommittee on Science and Technology, January, 1983.

[89] Philip Handler, Testimony before the United States House of Representatives, Committee on Science and Technology, May 1979, 24.

APPENDIX B

Additional Concerns With Respect to the Proposed Center for the Effective Education of the Disadvantaged

Many of the witnesses at the April hearing confirmed the need for new initiatives with respect to the education of the disadvantaged, as well as the urgency of ensuring that any planned new center is politically, financially and intellectually well placed to meet the massive challenges faced by the systems and schools attempting to serve students in this category. Because it is so important for the nation to fund a research center that properly addresses this area as effectively as possible, the details of any proposal should be carefully developed and scrutinized. A rush to fund a hastily conceptualised RFP must be avoided. Unfortunately, the Department of Education has published an RFP which ignores these basic principles. The guidelines set forth in this RFP appear to have been hastily conceptualised and were published in flagrant opposition to the carefully developed consensus of experts in this field. The Department of Education should withdraw this RFP until these experts have been consulted. The failure to do so will result in the funding of a tarnished new organisation which will not have the confidence of the education community and will have little chance for long-term survival.

Clearly, schools can and must make a difference in improving the educational opportunities for disadvantaged children. Indeed, the research which undergirds the effective schools movement began by identifying schools which were successfully educating socio-economically disadvantaged children despite the numerous obstacles the schools and the children faced in accomplishing this mission. Research which simply documents the obstacles to educating disadvantaged children, without providing specific suggestions or alternatives or usable knowledge about the success or failure of attempts or practices, fosters a fatalism and cynicism which is unwarranted in light of this evidence and detrimental to progress in this area.

A new Center for the Effective Education of the Disadvantaged should have a broad charge. It should not be bound by the parameters which have limited the other twenty centers; instead it should have maximum flexibility to employ new operational approaches.

There should be four distinct phases in the development of the proposed Center (As recommended in a letter from Congressmen Hawkins and Owens to Assistant Secretary Finn):

PHASE I

Immediately, independent researchers should be invited to submit papers and proposals which will help us establish parameters, set priorities and narrow the focus of the mission, goals, and objectives of a National Center-Laboratory. The present RFP and its related process should be abandoned.

PHASE II

The unique research function of this Center should be firmly established. Overlap with existing federally funded educational research on the disadvantaged should be avoided. Macro-research on the impact of school management; the governance of school systems; the impact of the community environment; the impact of related government policies, etc., are subject matters which might be emphasized.

PHASE III

A set of collaborative goals and activities—involving the existing centers and laboratories—should be developed in order to maximize the Center's effectiveness in promoting the effective education of disadvantaged children.

PHASE IV

The unique and supplemental laboratory function of the new Center should be developed. Such a function might include launching demonstration projects which encompass all or parts of urban school systems.

The Center should be located in Washington, D.C. to underscore its national focus. It should, in time, become a freestanding, quasi-public organization, in order to provide it with a funding base which can improve the likelihood that top scholars, disseminators, and policy and program experts may be recruited and maintained and which might enhance its ability to fund long-term projects.

Since more than two decades of awarding grants in accordance with the conventional standards and procedures of grantsmanship has failed to produce meaningful results for the principal targets of the federal legislation—the disadvantaged—it is imperative that the process of awarding grants be altered extensively. One important modification for consideration in awarding new OERI funds in general and grants to assist the disadvantaged in particular is the adoption of new additional standards for grantee capability:

PROPOSED CRITERIA FOR GRANTEE CAPABILITY

I. Experience with and exposure to disadvantaged students

More than 20% Disadvantaged Student Enrollment

Presence of an active recruitment program for disadvantaged students

Evidence of institutionalized academic support programs for disadvantaged students

Prior experience working with disadvan'aged students in public schools

Prior experience working with leaders of communities where disadvantaged students reside

II. Faculty research experience and demonstrated sensitivity

Evidence of recent commitment of the department and the institution prior to applying for grant

Significant percentage of faculty is of the same background as the disadvantaged group to be served

Substantial number of education department faculty members whose areas of specialization are relevant to the problems of the disadvantaged

A significant quantity of relevant papers, books and other products have been produced by the faculty

III. Demonstrated board and executive awareness and sensitivity

Some persons serving on the institution's policy board have backgrounds similar to the disadvantaged students to be served

Evidence of recent policy decisions and special initiatives which deomonstrate concern for the disadvantaged

Significant percentage of persons with disadvantaged backgrounds in executive and middle management positions

Significant percentage of the overall staff is of the same background as the disadvantaged group to be served

A history of previous involvement of the institution with programs and projects which impact favorably on the disadvantaged group to be served

O